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动物分类学报

ONE NEW WOLF SPIDERS OF THE GENUS *TROCHOSA* (ARANEAE, LYCOSIDAE) FROM YUNNAN PROVINCE, CHINA

QU Lei-Lei, PENG Xian-Jin*, YIN Chang-Min
College of Life Sciences, Hunan Normal University, Changsha 410081, Hunan, China

Abstract One new wolf spiders of the genus *Trochosa* C. L. Koch, 1848 (Araneae, Lycosidae) from China is described and illustrated under the name: *Trochosa longa* sp. nov. The differences between new species and its related species are discussed. Distributional data and illustrations of body and genital organs are provided.
Key words Taxonomy, Lycosidae, *Trochosa*, new species, China

Lycosidae (Wolf spiders), a large family with 2 339 species in 110 genera including 198 species in 15 genera from China, have a worldwide distribution (Platnick, 2009). Spiders in the genus *Trochosa* C. L. Koch, 1848 comprise a world fauna of approximately 92 species all over the world including 12 from China: *T. aquatica* Tanaka, 1985 (Guangdong, Zhejiang, Hunan, Japan), *T. bannaensis* Yin & Chen, 1995 (Hainan, Hong Kong, Guangdong, Yunnan), *T. corporaali* (Reimoser, 1935) (Karakoram), *T. menglaensis* Yin, Bao & Wang, 1995 (Guangxi, Yunnan), *T. robusta* (Simon, 1876) (Xinjiang, Japan), *T. ruricola* (De Geer, 1778) (Shaanxi, Hebei, Beijing, Gansu, Ningxia, Xinjiang, Shandong, Jilin, Palearctic), *T. ruricoloides* Schenkel, 1963 (Hainan, Guangdong, Fujian, Ynnnan, Jiangxi, Zhejiang, Hunan, Hubei, Xichuan, Tibet, Shaanxi), *T. spinipalpis* (F. O. P.-Cambridge, 1895) (North China), *T. suiningensis* Peng *et al*, 1997 (Hunan), *T. terricola* Thorell, 1856 (Beijing, Xinjiang, Liaoning, Jilin, Palearctic), *T. ursina* (Schenkel, 1936) (Sichuan, Gansu) and *T. wuchangensis* (Schenkel, 1963) (Hubei, Zhejiang, Hunan, Fujian, Guangxi, Hainan, Sichuan, Yunnan). Spiders of this genus is distinguished from other lycosid spiders by the presence of two distinct longitudinal bars in median band of carapace and the inverse 'T'-shaped median septum (Yin, 1995).

Recently, during examining wolf spiders collected from Yunnan Gaoligong Mountains during the surveys conducted by the California Academy of Sciences (CaAS) and the Hunan Normal University (HNU) from 1998 to 2008, two new species were identified and described in this paper.

Specimens were kept in 75% ethanol, described and illustrated under the Olympus SZX16 stereo microscope. Body measurements were taken from the dorsal side. The color photos were taken by a Nikon DS-Fil digital camera. Male palps were drawn based on left palp in ventral and retrolateral view. Epigyne were drawn in their natural and cleared states (after maceration in lactic acid for 10-20 minutes) and stored in microvials with the specimen. Epigynal hairs are omitted in the drawings. Measurements of leg lengths are given as total length (femur, patella + tibia, metatarsus, tarsus). All measurements are given in millimeters (mm). Type materials are deposited in Hunan Normal University, Changsha, China (HNU) and California Academy of Sciences, California, USA (CAS).

Abbreviations ALE = anterior lateral eyes, AME = anterior median eyes, PLE = posterior lateral eyes, PME = posterior median eyes, MOQA = median ocular quadrate anterior, MOQL = median ocular quadrate length, MOQP = median ocular quadrate posterior, CH = clypeus highness.

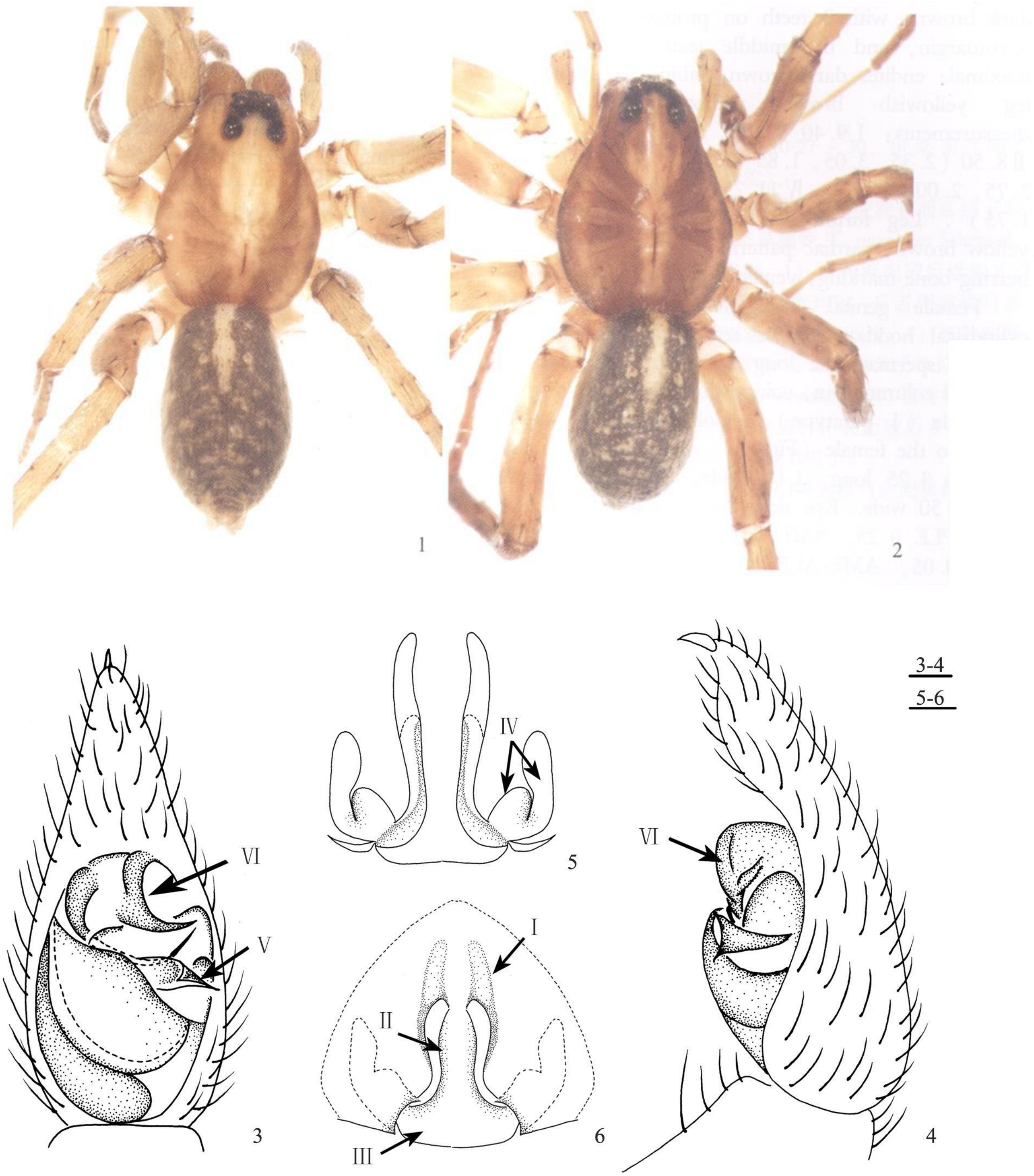
Taxonomy

Family Lycosidae Sundevall, 1833
Genus *Trochosa* C. L. Koch, 1848

Trochosa longa **sp. nov.** (Figs. 1-6)

Type material. Female (Holotype), China, Yunnan Province, Lushui County, Pianma Town, Ganfang (26.1°N, 98.6°E), 1 787 m, along the road, 16 May 2005, GUO Ke-Ji (GKJ005) (HUN). Paratypes 1♀, China, Yunnan Province, Gongshan County, Dulongjiang Town, Maku (27.7°N, 98.3°E), 1 677 m, 3 Sep. 2006, HU Peng (hu 060903) (HUN); 1♀, China, Yunnan, Gongshan County, 77 000 m of New Road to Donglongjiang

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* Corresponding author, E-mail: xpeng@126.com
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Figs 1-6. *Trochosa longa* sp. nov. 1-2. Dorsal view. 1. Female 2. Male 3. Palp organ, mesal 4. Palp organ, retromarginal 5. Vulva 6. Epigynum. Ⅰ. Hood Ⅱ. Perpendicular plate of epigynum. Ⅲ. Basal plate of epigynum. Ⅳ. Spermathecae Ⅴ. Median apophysis Ⅵ. Terminal apophysis Scale bars= 0.1 mm.

(27.9° N, 98.4° E), 2 183 m, 8-9 Nov. 2004, TANG Guo (tang 0409) (HUN); 1♀, China, Yunnan, Gongshan County, Dulongjiang Township, Dizhengdang Village, (28° N, 98.2° E), 1 841 m, 27-30 Oct. 2004, TANG Guo (tang 0405) (in CaAS); 1♂, same data as holotype (GKJ005) (in HUN).

Description. Female (holotype). Total length 6.75. Prosoma 3.40 long, 2.50 wide; opisthosoma 3.50 long, 2.00 wide. Carapace yellowish brown, with light yellow median and lateral bands, two distinct reddish brown bars present in light yellow median band, lateral belts wide, dark brown. sublateral belts obvious (Fig. 1). Eye sizes and interdistances: ALE 0.15, PLE 0.25, AME 0.15, PME 0.30, AME-AME 0.05, AME-ALE 0.05, PME-PME 0.20, PME-PLE 0.15, MOQL 0.55, MOQA 0.80, MOQP 1.05, CH 1.10.

Chelicerae dark brown, with 3 teeth on promargin and 4 on retromargin, and the middle teeth on promargin maximal; endites dark brown; labium dark brown; leg yellowish brown without annuli. Leg measurements: I 9.40 (2.50, 3.40, 2.00, 1.50), II 8.50 (2.35, 3.05, 1.85, 1.25), III 8.30 (2.30, 2.75, 2.00, 1.25), IV 11.25 (3.00, 3.50, 3.00, 1.75). Leg formula: 4123. Abdomen (Fig. 1) yellow brown, cardiac pattern long with 4 pairs of herring-bone marking; venter light yellowish brown.

Female genital. Epigynum with two long cylindrical hoods; median septum inverse 'T'-shaped; spermathecae long and thin, spermathecae long and columniform, coition duct thick and long.

Male (1 paratype). Coloration and pattern similar to the female (Fig. 2). Total length 6.05. Prosoma 3.25 long, 2.00 wide; opisthosoma 3.00 long, 1.50 wide. Eye sizes and interdistances: ALE 0.15, PLE 0.25, AME 0.15, PME 0.30, AME-AME 0.05, AME-ALE 0.05, PME-PME 0.20, PME-PLE 0.15, MOQL 0.70, MOQA 0.70, MOQP 1.05, CH 0.10, leg measurements: I 9.40 (2.50, 3.40, 2.00, 1.50), II 8.50 (2.35, 3.05, 1.85, 1.25), III 8.30 (2.30, 2.75, 2.00, 1.25), IV 11.25 (3.00, 3.50, 3.00, 1.75), formula 4123.

Male palp. Median apophysis narrow and with a turndown tip; terminal apophysis long; parts of embolus concealed by tegulum and median apophysis.

Diagnosis. This species is similar to *T. ruricoloides* (Yin, 1997), but can be separated by: 1) the helmet-shaped hood thinner and much longer (Fig. 6); 2) the perpendicular plate of epigynum symmetrical in *T. longa* versus not symmetrical in *T. ruricoloides* (Fig. 6); 3) the basal plate of epigyum shorter and narrower (Fig. 6); 4) the length of the top ramus of spermatheca columniform as long as the length of basal ramus in *T. longa* versus longer in *T. ruricoloides* (Fig. 5); 5) the median apophysis narrower and shorter in mesal view (Fig. 3); 6) the terminal apophysis longer and base of terminal apophysis smaller (Figs. 3-4).

Etymology. The specific name comes from the Latin word 'longa' = long, referring to the long epigynum.

Distribution. China (Yunnan). (Fig. 7)

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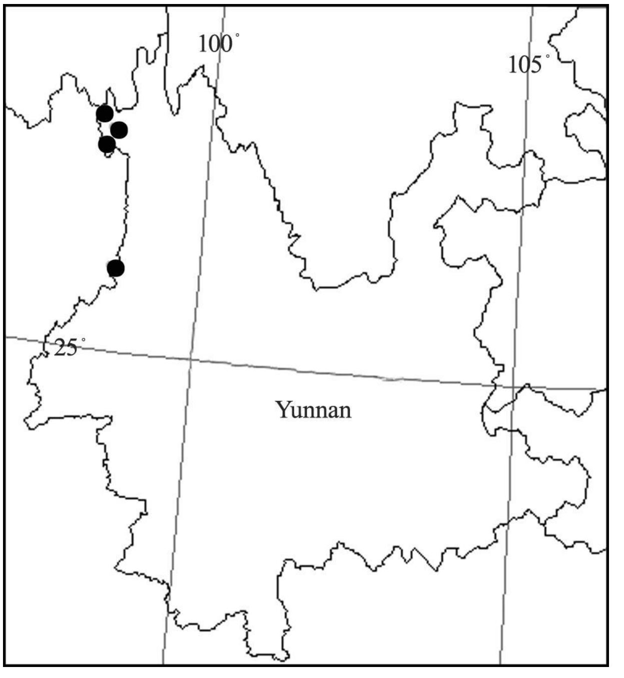


Fig. 7. Distribution records of the species ● *Trochosa longa* sp. nov.

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中国云南獾蛛属一新种 (蜘蛛目, 狼蛛科)

屈蕾蕾 彭贤锦* 尹长民
湖南师范大学生命科学学院 长沙 410081

摘 要 记述了采自云南的獾蛛属 *Trochosa* C. L. Koch, 1848 1新种: 长獾蛛 *Trochosa longa* sp. nov., 并提供了详细的描述、图版和分布数据。模式标本保存在湖南师范大学生命科学学院。

长獾蛛, 新种 Trochosa longa **sp. nov.** (图 1~6)

正模♀, 副模 1♂, 中国云南省怒江州泸水县片马镇岗房村 (26.1° N, 98.6° E), 1 787 m, 2005-05-16, 郭克疾采 (保存于湖南师范大学生命科学学院)。副模: 1♀, 中国云南省怒江州贡山县独龙江乡马库村 (27.7° N, 98.3° E), 1 677 m, 2006-09-03, 胡鹏采 (hu 060903) (保存于湖南师范大学生命科学学院); 副模 1♀, 中国云南省怒江州贡山县独龙江乡 (27.9°N, 98.4° E), 2 183 m, 2004-11-08~09, 唐果采 (tang 0409) (保存于湖南师范大学生命科学学院); 副模 1♀, 中国云南省怒江州贡山县独龙江乡迪政当村, (28° N, 98.2° E), 1 841 m, 2004-10-27~30, 唐果采 (tang 0405) (保存于美国加州科学院)。

新种雌蛛以其外雌器、中隔纵板及垂兜狭长而区别于本属其他种类。新种雌蛛与类奇异獾蛛 *T. ruricoloides* Schenkel, 1963较为类似, 但有如下区别: 1) 新种垂兜较后者细长; 2) 新种外雌器中隔纵板前后端宽度均匀, 后者则前端明显宽于后端; 3) 新种的中隔基板较后者窄和短; 4) 新种纳精囊的分叶的两端顶端叶长于基部叶, 而后者几乎等长。

新种雄蛛也与 *T. ruricoloides* Schenkel, 1963较为类似, 但有如下区别: 1) 从腹正中观本新种中突距较后者窄而短; 2) 新种的顶突较后者长, 基部较后者小。

词源: 新种因其雌性外雌器中隔纵板与垂兜狭长, 故取名长獾蛛。

地理分布: 中国 (云南)。

关键词 分类, 狼蛛科, 獾蛛属, 新种, 中国.
中图分类号 Q959.226

* 通讯作者.